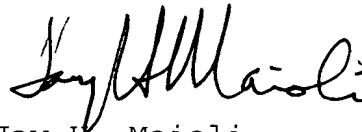lengths.--

REMARKS

Claims 1-12 remain in the application and have been amended hereby.

The specification and the claims have been amended to place them in better condition for examination.

An early and favorable examination on the merits is earnestly solicited.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT OF THE DISCLOSURE

The Abstract of the Disclosure has been amended as follows:

--A communication system for performing transmission and reception of a signal over a communication channel assesses a state of the communication channel[,] and produces channel state information accordingly. A block length selector selects block lengths that are dependent on the channel state information and that are selected from a group [consisting] of block lengths having an integral multiple relationship[,] to produce a schedule of block lengths. Encoding and decoding is performed based on the schedule of block lengths.--

IN THE CLAIMS

Claims 1-12 have been amended as follows:

--1. (Amended) A transmitter for transmitting a signal over a communication channel, the transmitter comprising:

a block length selector for receiving channel state information about a state of the communication channel, and for selecting block lengths that are dependent on the channel state information and that are selected from a group [consisting] of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

an encoder for receiving information from a source and

the schedule of block lengths from the block length selector,
and _for_ encoding the information from the source into an
encoded signal using the schedule of block lengths; and

an interface for transmitting the encoded signal over the
communication channel.

--2. (Amended) [A] _The_ transmitter as claimed in claim 1,
wherein the block length selector assembles the block lengths
in the schedule of block lengths in frames [that]_,_ each
[total] _frame totaling_ a maximum block length.

--3. (Amended) A receiver for receiving a signal
transmitted over a communication channel, the receiver
comprising:

a block length selector for receiving channel state
information about _a_ state of the communication channel, and
for selecting block lengths that are dependent on the channel
state information and that are selected from a group
[consisting] of block lengths having an integral multiple
relationship, to produce a schedule of block lengths;

an interface for receiving the signal from the
communication channel; and

a decoder for receiving the signal from the interface and
the schedule of block lengths produced by the block length
selector, and _for_ decoding the signal using the schedule of
block lengths.

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--4. (Amended) [A] The receiver as claimed in claim 3, further comprising a channel state estimator for assessing the state of the channel based on the signal from the communication channel, and for producing the channel state information accordingly.

--5. (Amended) [A] The receiver as claimed in claim 4, further comprising a channel state predictor for making predictions [on] of future conditions of the communication channel based on the channel state information from the channel state estimator, the block length selector producing the schedule of block lengths based on the predictions.

--6. (Amended) A communication system for performing transmission and reception of a signal over a communication channel, the communication system comprising:

a channel state estimator for assessing a state of the communication channel, and for producing channel state information accordingly;

a block length selector for receiving the channel state information from the channel state estimator, and for selecting block lengths that are dependent on the channel state information and that are selected from a group [consisting] of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

a transmitter including:

an encoder for receiving information from a source [and],

for receiving the schedule of block lengths from the block

length selector, and for encoding the information from the

source into an encoded signal using the schedule of block

lengths; and

a transmission interface for transmitting the encoded

signal over the communication channel; and

a receiver including:

a reception interface for receiving the encoded signal

from the transmission interface [across] over the

communication channel; and

a decoder for receiving the encoded signal from the

reception interface [and], for receiving the schedule of block

lengths produced by the block length selector, and for

decoding the signal using the schedule of block lengths.

--7. (Amended) [A] The communication system as claimed in

claim 6, wherein the channel state estimator is provided in

the receiver, and the block length selector is provided in

both the transmitter and the receiver, the channel state

estimator sending the channel state information to the block

length selector in the transmitter [across] over a feedback

channel, and sending the channel state information to the

block length selector in the transmitter.

--8. (Amended) [A] The communication system as claimed in

claim 7, wherein:

the receiver further includes a channel state predictor

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for making predictions [on] of future conditions of the
communication channel based on the channel state information
from the channel state estimator, the block length selector of
the receiver producing the schedule of block lengths based on
the predictions; and

the transmitter further includes a channel state
predictor for making prediction [on] of future conditions of
the communication channel based on the channel state
information from the channel state estimator, the block length
selector of the transmitter producing the schedule of block
lengths based on the predictions.

--9. (Amended) [A] The communication system as claimed in
claim 6, wherein the block length selector assembles the block
lengths in the schedule of block lengths in frames [that]⌐
each [total] frame totaling a maximum block length.

--10. (Amended) A method of transmitting a signal over a
communication channel, comprising the steps of:

receiving channel state information about a state of the
communication channel;

selecting block lengths that are dependent on the channel
state information and that are selected from a group
[consisting] of block lengths having an integral multiple
relationship, to produce a schedule of block lengths;

receiving information from a source;

encoding the information from the source into an encoded

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signal using the schedule of block lengths; and

transmitting the encoded signal over the communication channel.

--11.   (Amended) A method <u>of</u> receiving a signal transmitted over a communication channel, comprising <u>the steps of</u>:

receiving channel state information about <u>a</u> state of the communication channel;

selecting block lengths that are dependent on the channel state information and that are selected from a group [consisting] of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

receiving the signal from the communication channel; and

decoding the signal using the schedule of block lengths.

--12.   (Amended) A method of performing transmission and reception of a signal over a communication channel, comprising <u>the steps of</u>:

assessing <u>a</u> state of the communication channel, and producing channel state information accordingly;

selecting block lengths that are dependent on the channel state information and that are selected from a group [consisting] of block lengths having an integral multiple relationship, to produce a schedule of block lengths;

receiving information from a source;

encoding the information from the source into an encoded

signal using the schedule of block lengths;

transmitting the encoded signal over the communication channel;

receiving the encoded signal [from across] <u>over</u> the communication channel; and

decoding the encoded signal using the schedule of block lengths.--